

ABSTRACT OF THE DISCLOSURE

The present invention discloses a method for specifying and executing computing tasks in a preboot execution environment in general, and, in particular, an encapsulated object oriented polyphase preboot execution and specification language. The language is both a specification generator and interpreter. As a specification generator, the language allows encapsulation of parameters in specification files. Thus, the target customization of execution behavior is advantageously accomplished by encapsulating target dependent parameters in specification files, as the target specific parameters are best resolved at appropriate execution time when the parameter information becomes available. Such approach simplifies specification of complex tasks to a merely few lines of code, but, nevertheless affords reliable, robust, and accurate performance, since the pertinent parametric information are resolved only when they can be accurately ascertained. Furthermore, the language itself is polymorphic with respect to various phases of definition, generation, and execution. This polyphase language aspect combined with the polymorphic data encapsulation allows simplification of specifying and executing complex tasks in preboot environment. Therefore, the encapsulated object oriented polyphase preboot execution and specification language of the present invention provides a key cornerstone technology for a robust, reliable, flexible, and simple method for centralized maintenance and management of client devices in a networked enterprise computing environment, enabling a system with a lower total cost of ownership than existing products.